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RAW SEQUENCE LISTING DATE: 11/08/2000
PATENT APPLICATION: US/09/522,334 TIME: 10:46:48

Input Set : A:\4257-0018.30-SEQLIST.TXT
Output Set: N:\CRF3\11082000\I522334.raw

ENTERED

<110> APPLICANT: Wagner, Ry
Mathews, Helena
Liu, Xing Liang
Waggoner, Wency J.
<120> TITLE OF INVENTION: TRAIT-ASSOCIATED GENE IDENTIFICATION METHOD
<130> FILE REFERENCE: 4257-0018.30
<140> CURRENT APPLICATION NUMBER: 09/522,334
<141> CURRENT FILING DATE: 2000-03-09
<150> PRIOR APPLICATION NUMBER: US 60/124,232
<151> PRIOR FILING DATE: 1999-03-12
<160> NUMBER OF SEQ ID NOS: 28
<170> SOFTWARE: FastSEQ for Windows Version 4.0
<210> SEQ ID NO: 1
<211> LENGTH: 1361
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: modified enhancer
<400> SEQUENCE: 1

caacatggtg gagcacgaca ctctcgtcta ctccaagaat atcaaagata cagtctcaga 60
agaccagagg gctattgaga cttttcaaca aagggtaata tcgggaaacc tcctcggatt 120
ccattgccca gctatctgtc acttcatcga aaggacagta gaaaaggaag atggcttcta 180
caaatgccat cattgcgata aaggaaaggc tatcgttcaa gatgcctcta ccgacagtgg 240
tcccaaagat ggacccccac ccacgaggaa catcgtggaa aaagaagacg ttccaaccac 300
gtcttcaaag caagtggatt gatgtgatat ctagatcccc aacatggtgg agcacgacac 360
tctcgtctac tccaagaata tcaaagatac agtctcagaa gaccagaggg ctattgagac 420
ttttcaacaa agggtaatat cgggaaacct cctcggattc cattgcccag ctatctgtca 480
cttcatcgaa aggacagtag aaaaggaaga tggcttctac aaatgccatc attgcgataa 540
aggaaaggct atcgttcaag atgcctctac cgacagtggt cccaaagatg gacccccacc 600
cacgaggaac atcgtggaaa aagaagacgt tccaaccacg tcttcaaagc aagtggattg 660
atgtgatatc tagatcccca acatggtgga gcacgacact ctcgtctact ccaagaatat 720
caaagataca gtctcagaag accagaggge tattgagact tttcaacaaa gggtaatatc 780
gggaaacctc ctcggattcc attgcccagc tatctgtcac ttcatcgaaa ggacagtaga 840
aaaggaagat ggcttctaca aatgccatca ttgcgataaa ggaaaggcta tcgttcaaga 900
tgcctctacc gacagtggtc ccaaagatgg acccccaccc acgaggaaca tcgtggaaaa 960
agaagacgtt ccaaccacgt cttcaaagca agtggattga tgtgatatct agatccccaa 1020
catggtggag cacgacactc tcgtctactc caagaatatc aaagatacag tctcagaaga 1080
ccagagggct attgagactt ttcaacaaag ggtaatatcg ggaaacctcc tcggattcca 1140
ttgcccagct atctgtcact tcatcgaaag gacagtagaa aaggaagatg gcttctacaa 1200
atgccatcat tgcgataaag gaaaggctat cgttcaagat gcctctaccg acagtggtcc 1260
caaagatgga ccccaccca cgaggaacat cgtggaaaaa gaagacgttc caaccacgtc 1320
ttcaaagcaa gtggattgat gtgatatcta gatccgaaac t 1361

<210> SEQ ID NO: 2
<211> LENGTH: 202
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence

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62 <220> FEATURE:
63 <223> OTHER INFORMATION: enhancer fragment
65 <400> SEQUENCE: 2
66 agctatctgt cacttcatcg aaaggacagt agaaaaggaa gatggcttct acaaatgcca      60
67 tcattgcgat aaaggaaagg ctatcgttca agatgcctct accgacagtg gtcccaaaga     120
68 tggaccccca cccacgagga acatcgtgga aaaagaagac gttccaacca cgtcttcaaa     180
69 gcaagtggat tgatgtgata tc                                             202
71 <210> SEQ ID NO: 3
72 <211> LENGTH: 129
73 <212> TYPE: DNA
74 <213> ORGANISM: Artificial Sequence
76 <220> FEATURE:
77 <223> OTHER INFORMATION: enhancer fragment
79 <400> SEQUENCE: 3
80 caacatggtg gagcacgaca ctctcgtcta ctccaagaat atcaaagata cagtctcaga      60
81 agaccagagg gctattgaga cttttcaaca aagggtaata tcgggaaacc tcctcggatt     120
82 ccattgccc                                                            129
84 <210> SEQ ID NO: 4
85 <211> LENGTH: 7
86 <212> TYPE: DNA
87 <213> ORGANISM: Artificial Sequence
89 <220> FEATURE:
90 <223> OTHER INFORMATION: enhancer fragment
92 <400> SEQUENCE: 4
93 agatccc                                                                7
95 <210> SEQ ID NO: 5
96 <211> LENGTH: 313
97 <212> TYPE: DNA
98 <213> ORGANISM: Artificial Sequence
100 <220> FEATURE:
101 <223> OTHER INFORMATION: promoter fragment
103 <400> SEQUENCE: 5
104 agctggcttg tgggaccag acaaaaaagg aatggtgcag aattgttagg cgcacctacc      60
105 aaaagcatct ttgcctttat tgcaaagata aagcagattc ctctagtaca agtggggaac     120
106 aaaataacgt ggaaaagagc tgtcctgaca gcccactcac taatgcgtat gacgaacgca     180
107 gtgacgacca caaaagaatt ccctctatat aagaaggcat tcattcccat ttgaaggatc     240
108 atcagatact gaaccaatat ttctcactct aagaaattaa gagctttgta ttcttcaatg     300
109 agaggctaag acc                                                       313
111 <210> SEQ ID NO: 6
112 <211> LENGTH: 207
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: enhancer fragment
119 <400> SEQUENCE: 6
120 gtcaacatcg agcagctggc ttgtggggac cagacaaaaa aggaatggtg cagaattgtt      60
121 aggcgcacct accaaaagca tctttgcctt tattgcaaag ataaagcaga ttcctctagt     120
122 acaagtgggg aacaaaataa cgtggaaaag agctgtcctg acagcccact cactaatgcg     180
123 tatgacgaac gcagtgacga ccacaaa                                        207
```

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125 <210> SEQ ID NO: 7
126 <211> LENGTH: 250
127 <212> TYPE: DNA
128 <213> ORGANISM: Artificial Sequence
130 <220> FEATURE:
131 <223> OTHER INFORMATION: enhancer fragment
133 <400> SEQUENCE: 7
134 gagatcttga gccaatcaaa gaggagtgat gtagacctaa agcaataatg gagccatgac      60
135 gtaagggctt acgccattac gaaataatta aaggctgatg tgacctgtcg gtctctcaga     120
136 acctttactt tttatatttg gcgtgtattt ttaaatttcc acggcaatga cgatgtgacc     180
137 tgtgcatccg ctttgcctat aaataagttt tagtttgtat tgatcgacac gatcgagaag     240
138 acacggccat                                                           250
140 <210> SEQ ID NO: 8
141 <211> LENGTH: 360
142 <212> TYPE: DNA
143 <213> ORGANISM: Artificial Sequence
145 <220> FEATURE:
146 <223> OTHER INFORMATION: promoter fragment
148 <400> SEQUENCE: 8
149 ttcgtccaca gacatcaaca tcttatcgtc ctttgaagat aagataataa tgttgaagat      60
150 aagagtggga gccaccacta aaacattgct ttgtcaaaag ctaaaaaaga tgatgcccga     120
151 cagccacttg tgtgaagcat gtgaagccgg tccctccact aagaaaatta gtgaagcatc     180
152 ttccagtggt ccctccactc acagctcaat cagtgagcaa caggacgaag gaaatgacgt     240
153 aagccatgac gtctaatccc acaagaattt ccttatataa ggaacacaaa tcagaaggaa     300
154 gagatcaatc gaaatcaaaa tcggaatcga aatcaaaatc ggaatcgaaa tctctcatct     360
156 <210> SEQ ID NO: 9
157 <211> LENGTH: 24
158 <212> TYPE: DNA
159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: oligonucleotide primer
164 <400> SEQUENCE: 9
165 agcggataac aatttcacac agga                                            24
167 <210> SEQ ID NO: 10
168 <211> LENGTH: 20
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial Sequence
172 <220> FEATURE:
173 <223> OTHER INFORMATION: oligonucleotide primer
175 <400> SEQUENCE: 10
176 ttattttcttg agggcctcga                                               20
178 <210> SEQ ID NO: 11
179 <211> LENGTH: 20
180 <212> TYPE: DNA
181 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: oligonucleotide primer
186 <400> SEQUENCE: 11
187 cggcaatgta ccagctgata                                                20
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Input Set : A:\4257-0018.30-SEQLIST.TXT
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<210> SEQ ID NO: 12
<211> LENGTH: 19
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: oligonucleotide primer
<400> SEQUENCE: 12
gatccccaac atggtggag 19
<210> SEQ ID NO: 13
<211> LENGTH: 21
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: oligonucleotide primer
<400> SEQUENCE: 13
cacatcaatc cacttgcttt g 21
<210> SEQ ID NO: 14
<211> LENGTH: 20
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: oligonucleotide primer
<400> SEQUENCE: 14
actacgatac gggagggctt 20
<210> SEQ ID NO: 15
<211> LENGTH: 20
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: oligonucleotide primer
<400> SEQUENCE: 15
ctggcgtaat agcgaagagg 20
<210> SEQ ID NO: 16
<211> LENGTH: 20
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: oligonucleotide primer
<400> SEQUENCE: 16
tgacatgctc caaattccaa 20
<210> SEQ ID NO: 17
<211> LENGTH: 20
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: oligonucleotide primer
<400> SEQUENCE: 17
cttggcattg ggatcaaact 20
<210> SEQ ID NO: 18

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Input Set : A:\4257-0018.30-SEQLIST.TXT
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256 <211> LENGTH: 22
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: oligonucleotide primer
263 <400> SEQUENCE: 18
264 tttctttcac agatccgagt ca 22
266 <210> SEQ ID NO: 19
267 <211> LENGTH: 20
268 <212> TYPE: DNA
269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: oligonucleotide primer
274 <400> SEQUENCE: 19
275 ttctccacac tgcagattcg 20
277 <210> SEQ ID NO: 20
278 <211> LENGTH: 20
279 <212> TYPE: DNA
280 <213> ORGANISM: Artificial Sequence
282 <220> FEATURE:
283 <223> OTHER INFORMATION: oligonucleotide primer
285 <400> SEQUENCE: 20
286 gaggattgcc caaaaccata 20
288 <210> SEQ ID NO: 21
289 <211> LENGTH: 20
290 <212> TYPE: DNA
291 <213> ORGANISM: Artificial Sequence
293 <220> FEATURE:
294 <223> OTHER INFORMATION: oligonucleotide primer
296 <400> SEQUENCE: 21
297 ttttgggtgc aaaaacatca 20
299 <210> SEQ ID NO: 22
300 <211> LENGTH: 20
301 <212> TYPE: DNA
302 <213> ORGANISM: Artificial Sequence
304 <220> FEATURE:
305 <223> OTHER INFORMATION: oligonucleotide primer
307 <400> SEQUENCE: 22
308 taatacgact cactataggg 20
310 <210> SEQ ID NO: 23
311 <211> LENGTH: 22
312 <212> TYPE: DNA
313 <213> ORGANISM: Artificial Sequence
315 <220> FEATURE:
316 <223> OTHER INFORMATION: oligonucleotide primer
318 <400> SEQUENCE: 23
319 cgaggatatg aaatctcttg cc 22
321 <210> SEQ ID NO: 24
322 <211> LENGTH: 21

VERIFICATION SUMMARY DATE: 11/08/2000
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